

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number
WO 2004/037160 A2

(51) International Patent Classification⁷: A61K
(21) International Application Number: PCT/IL2003/000876
(22) International Filing Date: 23 October 2003 (23.10.2003)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 60/420,234 23 October 2002 (23.10.2002) US
(71) Applicant (for all designated States except US): YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM [IL/IL]; P.O. Box 39135, 91390 Jerusalem (IL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and
(75) Inventors/Applicants (for US only): TOUITOU, Elka [IL/IL]; 6 Demumit Street, Givat Canada, 93893 Jerusalem (IL). GODIN, Biana [IL/IL]; 17/9 Zangvil str., Kiriat Yovel, 96548 Jerusalem (IL).

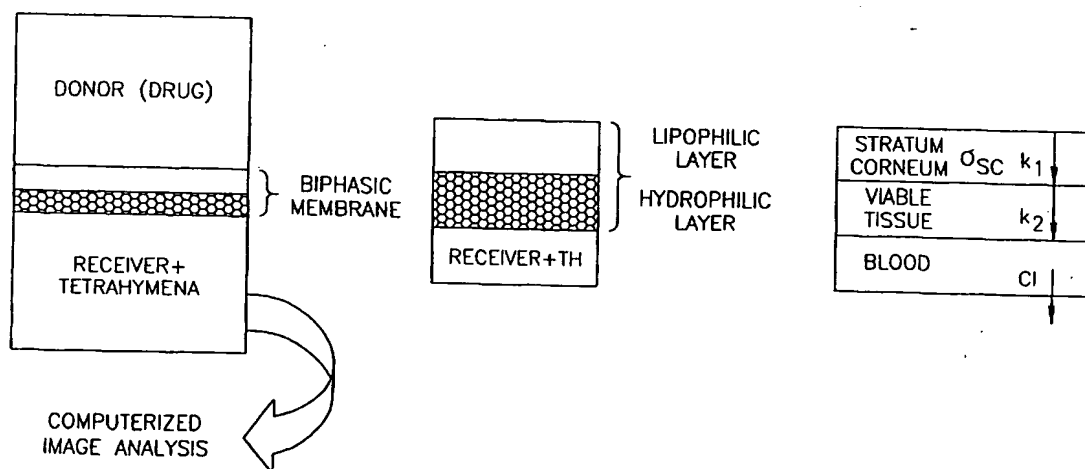
(74) Agents: EITAN, PEARL, LATZER & COHEN-ZEDEK et al.; 2 Gav Yam Center, 7 Shenkar Street, 46725 Herzlia (IL).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IN VITRO TEST FOR STUDYING COMPOUND PREDICTING PHARMACOLOGIC AND/OR PHARMACOKINETIC AND/OR PHARMACODYNAMIC PARAMETERS OF A COMPOUND



(57) Abstract: The invention provides a method and an assay for predicting the pharmacologic and/or pharmacokinetic and/or pharmacodynamic activity and/or effective concentration of a test material using cell and/or protozoa and/or micro-organism by assessing the effect of the test material on the and/or protozoa and/or micro-organism. Further, the invention provides an apparatus or a system, which comprises a donor and a receiver compartments, separated by membrane, wherein cell and/or protozoa and/or micro-organism are present in the receiver compartments, for predicting the pharmacologic of pharmacokinetic effects such as effective concentration of a test material, by assessing the effect of the test material, on the cell and/or protozoa and/or micro-organism. In addition, the invention provides use of an artificial human skin for measuring the diffusion or the penetration of a test material through the skin.